

**REMARKS**

Claims 1-3 and 6-19 are pending in this application.

The provisional rejections of the claims on the ground of nonstatutory, obviousness-type double patenting over a number of co-pending applications of BASF SE have been overcome by the filing of a Terminal Disclaimer. The filing of the Terminal Disclaimer is not to be construed as an admission, estoppel or acquiescence. See *GoLight, Inc. v Wal-Mart Stores, Inc.* 355 F.3d. 1327; 69 USPQ 2d. 1481 (Fed. Cir. 2004), *Quad Environmental Technology v. Union Sanitary District*, 20 USPQ2d 1392 (Fed. Cir. 1991) and *Ortho Pharmaceuticals Corp. v. Smith*, 22 USPQ2d 1119 (Fed. Cir. 1992).

The rejections of claims under 35 USC 103(a) over a number of co-pending applications of BASF SE have been overcome the filing of the “Statement of Common Ownership” that the inventions of the present application and of US Patent Applications Serial Numbers 10/587,997, 11/576,646, 11/577,009, 11/577,590, 11/632,711, 11/659,506, 11/659,625, 11/813,833, 11/996,489, and 11/815,238 were commonly owned by BASF AG, now BASF SE when the later of the present invention and that of any one of US Patent Applications Serial Numbers 10/587,997, 11/576,646, 11/577,009, 11/577,590, 11/632,711, 11/659,506, 11/659,625, 11/813,833, 11/996,489, and 11/815,238 was made. Accordingly, in view of the common ownership, the rejection under 35 USC 103(a) is no longer applicable pursuant to 35 USC 103(c).

Claims 1-3 and 6-19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,712,336 to Gareiss et al. (hereinafter “Gareiss”), in view of U.S. Patent Publication No. 2002/0161113 to Dvornic et al. (hereinafter “Dvornic”). This cited references do not render obvious the present invention.

As discussed in the specification, low-molecular-weight additives are usually added to semicrystalline thermoplastics to improve flowability. However, the action of these additives is subject to severe restriction, because, for example, the fall-off in mechanical properties becomes unacceptable when the amount added of the additive exceeds a certain level.

Also as discussed in the specification, it has been suggested to fabricate thermoplastic compositions which comprise dendrimeric polyesters in the form of an  $AB_2$  molecule. For example, please see WO-97/45474. Here, a polyhydric alcohol as core molecule reacts with dimethylpropionic acid as  $AB_2$  molecule to give a dendrimeric polyester. This contains only OH functionalities at the end of the chain. Disadvantages of these mixtures are the high glass transition temperature of the dendrimeric polyesters, the comparatively complicated preparation process, and especially the poor solubility of the dendrimers in the polyester matrix.

The present invention makes it possible to provide thermoplastic polyester molding compositions which have good flowability together with good mechanical properties, a combination of properties that is very difficult to achieve.

Gareiss discloses flame proofed thermoplastic molding materials that contain a thermoplastic polyester. As appreciated by the examiner, Gareiss does not disclose the highly branched or hyperbranched polyesters  $A_xB_y$  employed according to the present invention.

Dvornic described hyperbranched polymers and included in the long list of possible polymers mentioned therein is polyester. However, Dvornic does not include a polyester in any of the examples. The preferred polymers of Dvornic are apparently the polyureas. It would not have been obvious from Dvornic to admix a highly branched or hyperbranched polyester  $A_xB_y$  in the polyester compositions of Gareiss.

Dvornic mentions that hyperbranched polyesters “have a lower viscosity and better shear thinning properties for coating applications than similar compositions containing a chemically similar linear polyester . . .” However, Dvornic does not discuss blends of thermoplastic polymers and highly branched or hyperbranched polymers but just discuss hyperbranched polymers. There is no teaching or suggestion found in Dvornic or Gareiss that blends provide molding compositions having good flowability together with good mechanical properties (please see page 2 of the specification). Since there is no teaching or suggestion found in cited references to blend those polymers for the purposes described above, the claimed composition would not have been rendered unpatentable over these references. Further Applicants note that the references do not teach or suggest all the recitations of the claim method. In addition, as discussed above and in the specification, problems exist in including dendrimeric polyesters in polyester molding compositions, a possible negative teaching that should be considered. The art

should be considered as a whole, and portions arguing against or teaching away from the claimed invention must be considered. Please see *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 230 U.S.P.Q. 46 (Fed. Cir. 1986).

Moreover, the cited references provide no guidance as to what result effect variable is achieved, i.e., good flowability with good mechanical properties. The only place this result is discussed is the Applicants' own specification. In addition, the references do not recite concentrations at all. Persons skilled in the art faced with the problem of providing a molding composition with reduced viscosity along with good mechanical properties would not be lead by Dvornic to add a highly branched or hyperbranched polyester  $A_xB_y$  to a thermoplastic polyester. In fact, selecting a polyester from the list of possible polymers of Dvornic would be fortuitous since there is no preference for polyesters therein.

Applicants also direct the Office to Tables 4 and 5 of the specification. In Table 4, the properties of polyester compositions within the claimed range (Examples 12-17) are compared to a polyester composition outside the claimed range (this composition does not contain a hyperbranched polyester). Applicants direct the Office to the strength and flowability properties of these compositions. The comparative Example (1C) has a much lower flow spiral (35) compared to the inventive compositions (42-46). At the same time the inventive samples show comparable mechanical properties such as tensile, modulus of elasticity and impact strength compared to the comparative example. The inventive examples have superior flow characteristics while maintaining mechanical properties.

Table 5 lists 3 polymer blends containing a polyester and a hyperbranched polyester which is outside the claimed range ( $A_xB_y$  Type with  $X = 1.0$  and  $Y = 2.0$ ). Inspection of Table 5 shows that while these polymer blends have good flow spiral (43-46) they have lower mechanical properties such as notched impact (2-2.5) versus the inventive examples (5-6.1 for samples 12-17 in Table 4).

These results show that the claimed polymer blend has unexpected or superior properties and these results rebut any *prima facie* case of obviousness. Accordingly, Applicants respectfully request that the Office withdraw the obviousness rejections under 35 U.S.C. §103(a) and under the judicially created obviousness-type double patenting rejections.

In view of the above, consideration and allowance are respectfully solicited.

In the event the Examiner believes an interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

The Office is authorized to charge any necessary fees due with this paper to Deposit Account No. 03-2775, under Order No. 12810-00333-US1 from which the undersigned is authorized to draw.

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